'Nearpod in diagnostic radiography education: Student engagement and feedback'

Nearpod in Diagnostic Radiography Education: Student Engagement and Feedback

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Introduction

Nearpod is a cloud-based audience response system capable of interactive learning activities in the classroom[1]. Students use their own devices or a computer to view the content and interact with the lecture. It has been proven to be effective in increasing student engagement by higher education institutions teaching healthcare subjects[2,3]. Nearpod helps students to adapt to various stages of student progression in keeping with Credit Level Descriptors[4]. At Ulster University (UU), a modified constructive alignment model[5] is used to meet professional competencies[6]. Various Nearpod features allow educators to address the themes of what a professional should 'know, do, and be'[7].

- **Knowing**: there are features such as **Nearpod 3D** (Figure 1) and **PDF viewer** (students explore 3D anatomy or relevant documents on their device). Students can view content to gain foundational knowledge.
- **Doing**: for student interaction, there are **draw-it** (Figure 2), **match pairs** (Figure 3), **open ended questions**, **fill in the blanks** and **quiz** features. Students interact and gain understanding of their own progress.
- **Being**: for complete openness, there is **collaborate**, a virtual pin-board allowing for free text entry in real-time (Figure 4), giving a gauge of student autonomy, values and beliefs.
- **Reports** are saved after every session, showing copies of all student interactions, and a summary of results (Figure 5). This allows the educator to assess student progression.

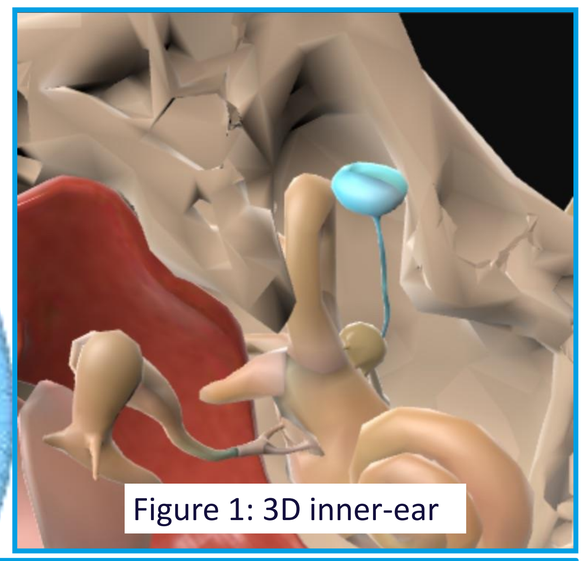

Figure 1: 3D inner-ear

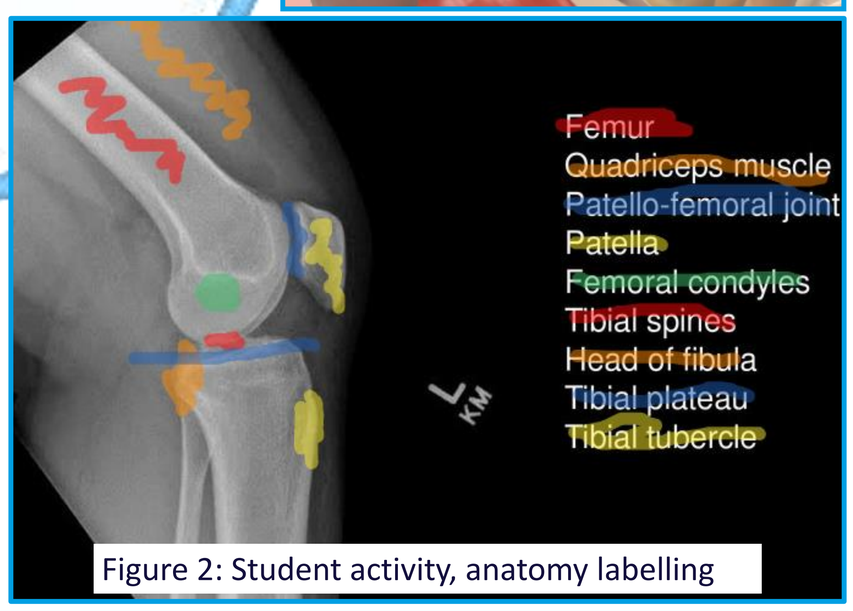

Figure 2: Student activity, anatomy labelling

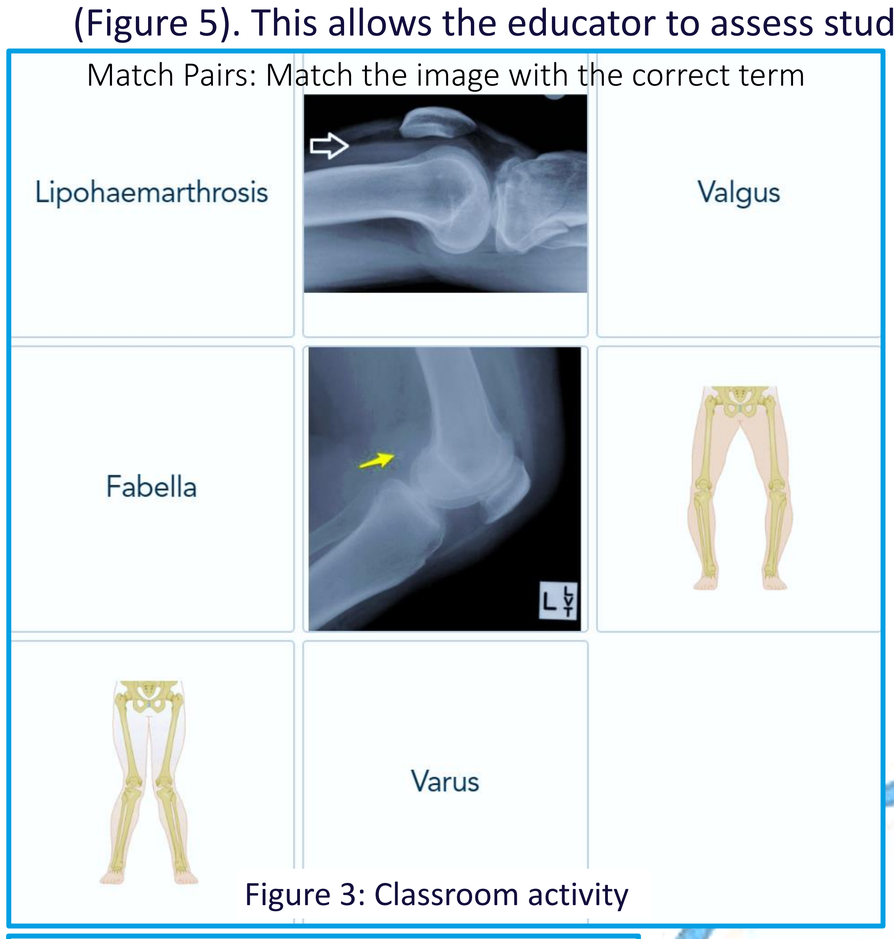

Figure 3: Classroom activity

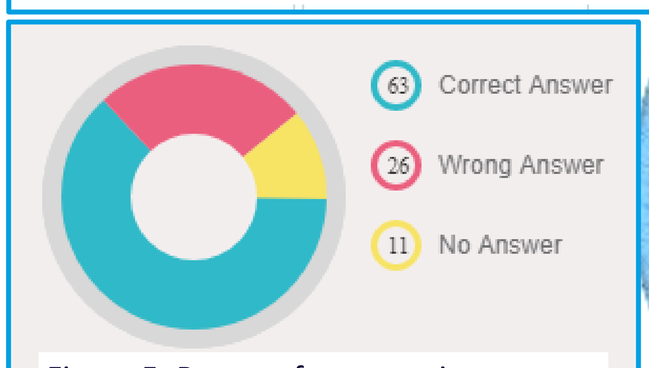

Figure 5: Reports feature quiz summary

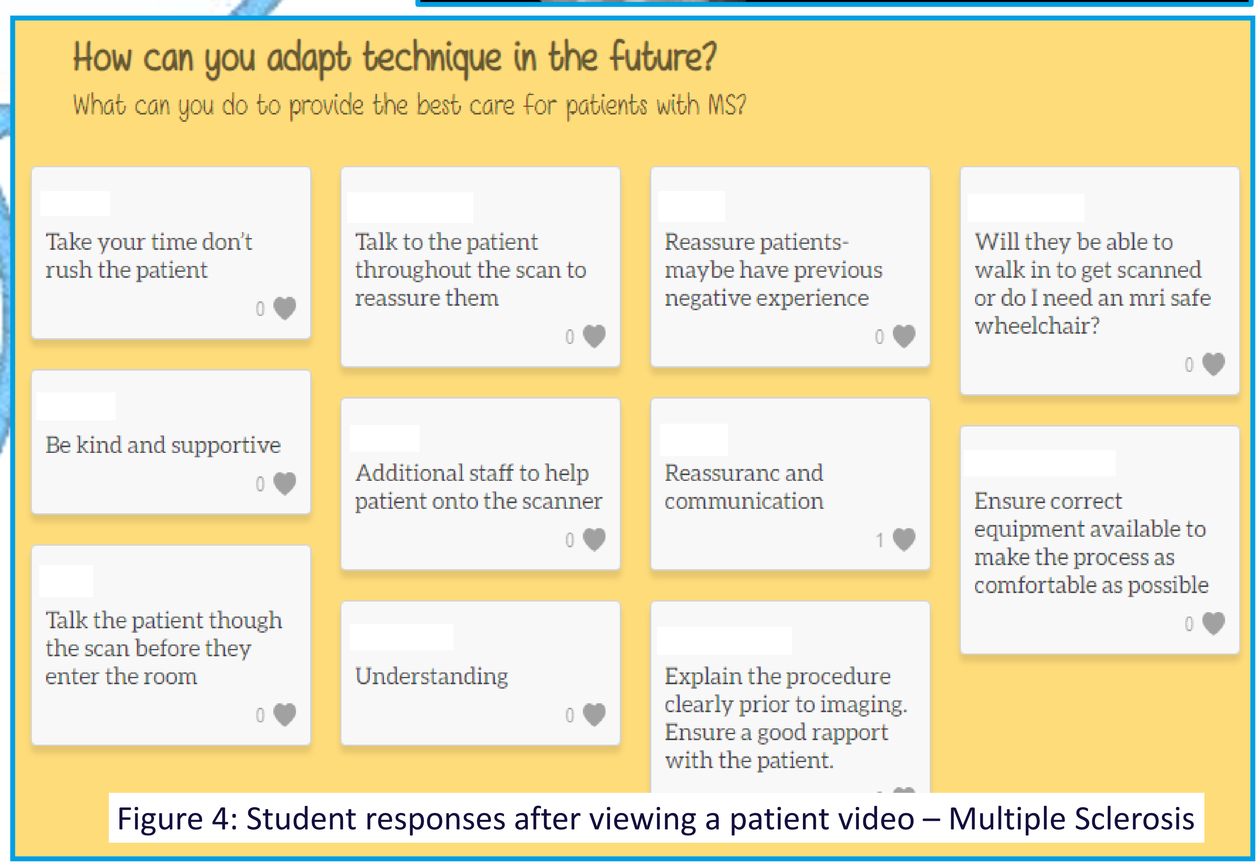

Figure 4: Student responses after viewing a patient video – Multiple Sclerosis

Student Feedback

Nearpod has received only positive student feedback on the Diagnostic Radiography course. In answer to '**What did you feel was particularly good about this module?**' (where Nearpod was used), responses included:

- **'Allowed questions to be given and labelling exercises which I revisited when revising for exams, this built my confidence for exams.'**
- **'The use of Nearpod and more interactive resources such as YouTube videos and tutorials to enhance learning.'**
- **'Use of Nearpod sessions were really good and engaging'**
- **'Use of Nearpod as a gauge for how well I was learning the material.'**

Conclusion

Nearpod is now used regularly at UU with 32,000 student access instances in 17/18 across the institution[8]. Sharing this teaching practice will hopefully lead to discussions regarding the value and limitations of such applications.

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